

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Currently Amended) ~~The method of claim 3,~~ A method for enhancing image

quality in an image encoding system, including:

applying a temporal median filter to corresponding pixel values of a previous digital video image, a current digital video image, and a next digital video image to create a noise-reduced digital video image; further including:

comparing the difference between each corresponding pixel value of each noise-reduced digital video image and each corresponding current digital video image to a threshold value to generate a difference value; and

selecting, for each final pixel value for the noise-reduced digital video image, a corresponding pixel value from the current digital video image if the difference value is within a first threshold comparison range, and a corresponding pixel value from the noise-reduced digital video image if the difference value is within a second threshold comparison range.

5. (Currently Amended) ~~The method of claim 4,~~ A method for enhancing image quality in an image encoding system, including:

applying a temporal median filter to corresponding pixel values of a previous digital video image, a current digital video image, and a next digital video image to create a noise-reduced digital video image;

comparing the difference between each corresponding pixel value of each noise-reduced digital video image and each corresponding current digital video image to a threshold value to generate a difference value; and

selecting, for each final pixel value for the noise-reduced digital video image, a corresponding pixel value from the current digital video image if the difference value is within a first threshold comparison range, and a corresponding pixel value from the noise-reduced digital video image if the difference value is within a second threshold comparison range,

wherein the threshold value is selected from the range of approximately 0.1 to approximately 0.3.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) ~~The method of claim 7,~~ A method for enhancing image quality in an image encoding system, including creating a noise-reduced digital video image comprising a linear weighted sum of five terms:

a current digital video image;

an average of horizontal and vertical medians of the current digital video image;

a thresholded temporal median;
an average of horizontal and vertical medians of the thresholded temporal median; and
a median of the thresholded temporal median and horizontal and vertical medians of the
current digital video image,

wherein the weights of the five terms are approximately 50%, 15%, 10%, 10%, and 15%, respectively.

9. (Currently Amended) ~~The method of claim 7,~~ A method for enhancing image quality in an image encoding system, including creating a noise-reduced digital video image comprising a linear weighted sum of five terms:

a current digital video image;
an average of horizontal and vertical medians of the current digital video image;
a thresholded temporal median;
an average of horizontal and vertical medians of the thresholded temporal median; and
a median of the thresholded temporal median and horizontal and vertical medians of the
current digital video image,

wherein the weights of the five terms are approximately 35%, 20%, 22.5%, 10%, and 12.5%, respectively.

10. (Currently Amended) ~~The method of claim 7, further including:~~ A method for enhancing image quality in an image encoding system, including:

creating a noise-reduced digital video image comprising a linear weighted sum of five
terms:

a current digital video image;

an average of horizontal and vertical medians of the current digital video image;

a thresholded temporal median;

an average of horizontal and vertical medians of the thresholded temporal median;

and

a median of the thresholded temporal median and horizontal and vertical medians
of the current digital video image;

determining a motion vector for each nxn pixel region of the current digital video image
with respect to at least one previous digital video image and at least one subsequent digital video
image;

applying a center weighted temporal filter to each nxn pixel region of the current digital
video image and corresponding motion-vector offset nxn pixel regions of the at least one
previous digital video image and at least one subsequent digital video image to create a motion-
compensated image; and

adding the motion-compensated image to the noise-reduced digital video image.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) ~~The method of claim 11,~~ A method for enhancing image
quality in an image encoding system, including:

determining a motion vector for each nxn pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each nxn pixel region of the current digital video image and corresponding motion-vector offset nxn pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image,

wherein each digital video image is a three-field-frame de-interlaced image.

14. (Currently Amended) ~~The method of claim 11,~~ A method for enhancing image quality in an image encoding system, including:

determining a motion vector for each nxn pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each nxn pixel region of the current digital video image and corresponding motion-vector offset nxn pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image,

wherein each digital video image is a thresholded three-field-frame de-interlaced image.

15. (Currently Amended) ~~The method of claim 11,~~ A method for enhancing image quality in an image encoding system, including:

determining a motion vector for each $n \times n$ pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each $n \times n$ pixel region of the current digital video image and corresponding motion-vector offset $n \times n$ pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image,

wherein the center weighted temporal filter is a three-image temporal filter having weights for each of such images of approximately 25%, 50%, and 25%, respectively.

16. (Currently Amended) ~~The method of claim 11,~~ A method for enhancing image quality in an image encoding system, including:

determining a motion vector for each $n \times n$ pixel region of a current digital video image with respect to at least one previous digital video image and at least one subsequent digital video image; and

applying a center weighted temporal filter to each $n \times n$ pixel region of the current digital video image and corresponding motion-vector offset $n \times n$ pixel regions of the at least one previous digital video image and at least one subsequent digital video image to create a motion-compensated image,

wherein the center weighted temporal filter is a five-image temporal filter having weights for each of such images of approximately 10%, 20%, 40%, 20%, and 10%, respectively.

17. (Original) A method for enhancing image quality in an image encoding system, including:

applying a normal down filter to an image to create a first intermediate image;

applying a Gaussian up filter to the first intermediate image to create a second intermediate image; and

adding a weighted fraction of the second intermediate image to a selected image to create an image having reduced high frequency noise.

18. (Original) The method of claim 17, wherein the weighted fraction is between approximately 5% and 10% of the second intermediate image.